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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,812	10/05/2001	Timothy W. Clark	4487.26.0	4568
22859	7590	10/05/2004		
INTELLECTUAL PROPERTY GROUP FREDRIKSON & BYRON, P.A. 200 SOUTH SIXTH STREET SUITE 4000 MINNEAPOLIS, MN 55402			EXAMINER BERKO, RETFORD O	
			ART UNIT	PAPER NUMBER
			1615	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/971,812	Applicant(s) CLARK ET AL.	
	Examiner Retford Berko	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-18, 20-25 and 28-32 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5, 7-18, 20-25 and 28-32 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement: Applicant's amendment filed April 5, 2004 is acknowledged.

Status of Claims

1. The status of the claims is as follows:

Claims 1-5, 7-18, 20-25, 28-32 are pending following the amendment. No new claims were added.

Claims 6, 19, 26 and 27 are cancelled by applicant's amendment.
2. The text of those sections of title 35 U.S.C. not included in this in this action can be found in a prior Office Action.
3. This Office Action contains New Grounds of Rejections. However, applicant's amendment in the claims necessitated a new search.

Rejections Withdrawn

4. The rejection of claims 1-14 and claim 22 under 35 U.S.C. 102 (b) as anticipated by Glabe et al (US 4, 161, 543) is withdrawn in view of applicant's arguments and amendments to the claims.
5. The rejection of claims 1-14 and claim 22 under 35 U.S.C. 102 (b) as being anticipated by Glabe et al (US 4, 196, 194) is withdrawn in view of applicant's arguments and amendments to the claims.
6. The rejection of claims 1-14 and claim 22 under 35 U.S.C. 102 (b) as being anticipated by Glabe et al (US 4, 015, 018) is withdrawn in view of applicant's arguments and amendments to the claims.

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New Grounds of Rejections:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5, 7-18, 20-25, 28-32 are rejected under 35 U.S.C.103(a) as being unpatentable over Glabe et al (US 4, 196, 194) in view of Tock et al (US 5, 637, 312) further in view of Glabe et al (US 3, 925, 559).

Claims 1-5 are drawn to a method of increasing the intake and lactation in dairy animals comprising administering feed supplement comprising a mixture of effective amounts of sodium diacetate and sugar, that the sugar (consisting of dextrose, glucose fructose or D-ribose); adding feed supplement to the mixed feed and administering feed to the animals. In the method, the weight ratio of the sodium diacetate to the other ingredients in the feed supplement is 0.2-0.7; 0.2-0.4 and the sugar comprises of a monosaccharide or disaccharide.

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According to applicant, the other claims; i.e. claim limitations in claims 7-18, 20-25, 28-32-- are drawn to the sugar in the feed; consisting of sucrose and maltose, the %/wt ranges of the ingredients are provided; that the supplement contains sodium bicarbonate or bentonite (%/wt ranges are given) and the total amount of bentonite and sodium bicarbonate in the feed supplement does not exceed 50%.

Glabe et al (Patent '194) meets applicant's claim limitations in that Patent '194 discloses an invention in which a method is described wherein dairy cattle is fed with a composition containing sodium diacetate and carbohydrates from many sources (corn silage, whey, hay). The feed supplement comprises of other ingredients in addition to the sodium bentonite and sodium diacetate (col 2, lin 5-40); provide ratios or proportions of the sodium diacetate and the other ingredients and specifically mentions, as in applicant's claims that the quantity of sodium diacetate is approximately 50% of the mixture (col 4, lin 40-55). According to Glabe, the when cattle are fed the feed supplement, there is increase in milk production in the animals (abstract, col 1, lin 20, col 2, lin 1-40 and col4, lin 45-50).

However, Patent '194 does not teach the advantages of using various amounts of diacetate in the feed in terms of aiding the enhancement of fermentation or digestion in the animals.

Tock et al (Patent '312) disclose a method of increasing milk production of dairy cows using feed composition comprising cellulose roughage and salts, said composition shown to enhance or improve digestibility in the animals, improves weight gain and meat production (abstract, col 7, lin 13, col 8, lin 53-65 and col 17, lin 40-50). Patent '312 discloses that the composition that enhances digestion in the rumen of the dairy cows comprises carbohydrates

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such as starch, soluble sugars (glucose) and 5-carbon sugars (D-ribose is a 5-carbon sugar); proteins and vitamins (col 8, lin 1-30).

Glabe et al (Patent '559) discloses the use of specific amounts of sodium diacetate in preparing the feed composition and points out that sodium diacetate in small quantities are used for increasing the taste of feed and making such feed attractive to the animals (col 2, lin 40-60 and col 3, lin 10 and col 5, lin 1-5)).

One of ordinary skill in the art would have been motivated to prepare a feed supplement composition comprising ingredients that can enhance the digestion or fermentation in dairy cows; said feed supplement comprising amounts of sodium diacetate as attractant. One of ordinary skill would expect that the feed supplement thus prepared will enhance both feeding and digestion in the dairy animals thereby increase both the weight of the animals milk as shown by the results in the prior art cited. Therefore the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time of the invention was made.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Glabe et al (US 4, 015, 018) disclose animal feed composition containing sodium diacetate; said feed increases milk production in dairy cattle (col 6, lin 10-20). The reference is pertinent because it shows applicant's claims are previously disclosed. The reference is not being relied upon because the reference does not specifically provide specific sources of soluble sugars and also does not show enhancement of digestion or fermentation in the rumen of the animals.

Conclusion

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Retford Berko** whose telephone number is 571-272-0590. The examiner can normally be reached on M-F from 8.00 am to 5.30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Thurman K Page**, can be reached on 571-272-0602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully,

THURMAN K. PAGE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600